

# NASA TECH BRIEF

## *John F. Kennedy Space Center*



NASA Tech Briefs announce new technology derived from the U.S. space program. They are issued to encourage commercial application. Tech Briefs are available on a subscription basis from the National Technical Information Service, Springfield, Virginia 22151. Requests for individual copies or questions relating to the Tech Brief program may be directed to the Technology Utilization Office, NASA, Code KT, Washington, D.C. 20546.

### Logistics Hardware and Services Control System

#### The problem:

A method of logistics control was needed for all facets of hardware and services inventory.

#### The solution:

A computer software system was written to permit onsite direct control of logistics operations, which include spare parts, initial installation, tool control, and repairable parts status and control, through all facets of operations.

The system integrates logistics actions and controls receipts, issues, loans, repairs, fabrications, and modifications and assists in predicting and allocating logistics parts and services effectively.

#### How it's done:

The system permits a real-time operational mode of logistics purchases, issues, receipts, loans, and shortages, by making direct inputs into a minicomputer, receiving hard copy after edit, and batching data on paper tape, for remote batch processing to obtain management and working reports.

The user inputs data on paper tape (Friden code) while posting a ledger and maintaining a real-time inventory posting file. Data is batch processed, as needed, to provide up to 20 different reports. The status of all logistics requirements is posted, as needed (with all repair, unserviceable transfers, purchases and shortages), and is displayed on one ledger for complete inventory control. The configuration of parts is further maintained through the use of a provisioning ledger report, which includes all next higher-assembly applications.

The large computer costs are minimized without degradation of service, and edit checks are performed at

three distinct levels of operation: (1) input to mini-computer, (2) card-punch and ledger-print calculation edit, and (3) data element versus table edit.

The advantages of this system are as follows:

- a. the real-time mode of the inventory balance on the ledger;
- b. the generation of an edited message; and
- c. the subsequent batch-processed reports, which integrate the provisioning function, the tracking function, and the inventory status into a completely-controlled logistics operation linked to the requirements of the user (or production division).

#### Notes:

1. This system was written for an IBM 360/65 operating under OS/MVT. The language is ANSI COBOL.
2. The system uses Singer 5610 Computer, IBM 026, Singer 2313 card reader, Singer 2201 Flexowriter (User should develop his own input and methods).
3. Inquiries concerning this program should be directed to:

COSMIC  
112 Barrow Hall  
University of Georgia  
Athens, Georgia 30601  
Reference: KSC-10819

Source: A. Koromilas, K. Miller, and  
T. Lamb of  
The Boeing Company  
under contract to  
Kennedy Space Center  
(KSC-10819)